

**PLEASE AMEND THIS APPLICATION AS FOLLOWS:**

**In The Title:**

Change the title to:

✓ -- NON-IONICALLY BOUND CONSTRUCTS, AND COMPOSITIONS AND KITS  
COMPRISING DOMAINS --.

**In the Claims:**

Cancel claim 1. ✓

Add new claims 245-302 as follows

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a  
-- 245. (New) A construct which when present in a cell produces a product,  
said construct having at least one terminus comprising a polynucleotide tail  
hybridized to a complementary polynucleotide sequence and an antibody bound to  
said hybridized polynucleotide sequence, said construct being bound non-ionically  
to an entity comprising a chemical modification or a ligand. --

-- 246. (New) The construct of claim 245 wherein said antibody comprises a  
polyclonal or monoclonal antibody. --

246  
D'  
-- 247. (New) A composition comprising:  
(a) a non-natural entity which comprises:  
at least one domain to a nucleic acid component; and  
at least one domain to a cell of interest; and  
(b) said nucleic acid component; wherein the domain or domains to said  
nucleic acid component are different from the domain or domains to  
said cell. --

-- 248. (New) The composition of claim 247, wherein said entity comprises a  
binder. --

-- 249. (New) The composition of claim 248, wherein said binder and said  
domain are the same. --

-- 250. (New) The composition of claim 248, wherein said binder and said  
domain are different. --

-- 251. (New) The composition of claim 248, wherein said binder is selected from a polymer, a matrix, a support, or a combination of any of the foregoing. --

*Sub B2*  
-- 252. (New) The composition of claim 247, wherein said nucleic acid component is selected from a nucleic acid, a nucleic acid construct, a nucleic acid conjugate, a virus, a viral fragment, a viral vector, a viroid, a phage, a plasmid, a plasmid vector, a bacterium and a bacterial fragment, or a combination of the foregoing. --

-- 253. (New) The composition of claim 247, wherein said cell is prokaryotic or eukaryotic. --

-- 254. (New) The composition of claim 247, wherein said domains are attached covalently or noncovalently, or through a binder, or a combination thereof. --

-- 255. (New) The composition of claim 254, wherein said noncovalent binding is selected from ionic interactions and hydrophobic interactions, or a combination thereof. --

-- 256. (New) The composition of claim 255, wherein said noncovalent binding comprises a specific complex. --

*Sub D2*  
-- 257. (New) The composition of claim 256, wherein said specific complex is mediated by a ligand binding receptor. --

*Sub B3*  
-- 258. (New) The composition of claim 257, wherein said ligand binding receptor is selected from a polynucleotide sequence to be recognized by its complementary sequence, an antigen to be recognized by its corresponding monoclonal or polyclonal antibody, an antibody to be recognized by its corresponding antigen, a lectin to be recognized by its corresponding sugar, a hormone to be recognized by its receptor, a receptor to be recognized by its hormone, an inhibitor to be recognized by its enzyme, an enzyme to be recognized by its inhibitor, a cofactor to be recognized by its cofactor enzyme binding site, a cofactor enzyme binding site to be recognized by its cofactor, a binding ligand to be recognized by its substrate, or a combination of the foregoing. --

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- 259. (New) The composition of claim 248, wherein the domain to said nucleic acid component and the domain to said cell of interest are natural, and said binder is attached to said nucleic acid component by means other than a natural binding site. --
- 260. (New) The composition of claim 259, wherein said binder comprises modified fibronectin or modified polylysine, or both. --
- 261. (New) The composition of claim 247, wherein said cell of interest is contained within an organism. --
- 262. (New) The composition of claim 247, further comprising said cell of interest. --
- 263. (New) A method of introducing a nucleic acid component into a cell comprising:
- (a) providing the composition of claim 247; and
  - (b) administering said composition. --
- 264. (New) The method of claim 263, wherein administering is carried out *in vivo*. --
- 265. (New) The method of claim 263, wherein administering is carried out *ex vivo*. --
- 266. (New) A kit for introducing a nucleic acid component into a cell of interest, comprising in packaged containers or combination:
- (a) a non-natural entity which comprises at least one domain to said nucleic acid component, and a domain to said cell of interest;
  - (b) a nucleic acid component, optionally with
  - (c) buffers and instructions. --
- 267. (New) A composition comprising:
- an entity which comprises at least one domain to a cell of interest, wherein said domain or domains are attached to a nucleic acid component which is in non-double stranded form. --

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-- 268. (New) The composition of claim 267, wherein said entity comprises a binder. --

-- 269. (New) The composition of claim 268, wherein said binder and said domain are the same. --

-- 270. (New) The composition of claim 268, wherein said binder and said domain are different. --

-- 271. (New) The composition of claim 268, wherein said binder is selected from a polymer, a matrix, a support, or a combination of any of the foregoing. --

-- 272. (New) The composition of claim 267, wherein said cell is prokaryotic or eukaryotic. --

-- 273. (New) The composition of claim 267, wherein said nucleic acid component is selected from a nucleic acid, a nucleic acid construct, a nucleic acid conjugate, a virus, a viral fragment, a viral vector, a viroid, a phage, a plasmid, a plasmid vector, a bacterium and a bacterial fragment, or a combination of the foregoing. --

-- 274. (New) The composition of claim 267, wherein said domain is selected from covalent bonding and noncovalent binding, or a combination thereof. --

-- 275. (New) The composition of claim 274, wherein said noncovalent binding is selected from ionic interactions and hydrophobic interactions, or a combination thereof. --

-- 276. (New) The composition of claim 275, wherein said noncovalent binding comprises a specific complex. --

-- 277. (New) The composition of claim 276, wherein said specific complex is mediated by a ligand binding receptor. --

-- 278. (New) The composition of claim 277, wherein said ligand binding receptor is selected from a polynucleotide sequence to be recognized by its

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-- 286. (N w) The composition of claim 285, wherein said entity comprises a binder. --

-- 287. (New) The composition of claim 286, wherein said binder and said domain are the same. --

-- 288. (New) The composition of claim 286, wherein said binder and said domain are different. --

-- 289. (New) The composition of claim 286, wherein said binder is selected from a polymer, a matrix, a support, or a combination of any of the foregoing. --

-- 290. (New) The composition of claim 286, wherein said nucleic acid component is selected from a nucleic acid, a nucleic acid construct, a nucleic acid conjugate, a virus, a viral fragment, a viral vector, a viroid, a phage, a plasmid, a plasmid vector, a bacterium and a bacterial fragment, or a combination of the foregoing. --

-- 291. (New) The composition of claim 285, wherein said cell is eukaryotic or prokaryotic. --

-- 292. (New) The composition of claim 285, wherein said domain is selected from covalent bonding and noncovalent binding, or a combination thereof. --

-- 293. (New) The composition of claim 292, wherein said noncovalent binding is selected from ionic interactions and hydrophobic interactions, or a combination thereof. --

-- 294. (New) The composition of claim 292, wherein said noncovalent binding comprises a specific complex. --

-- 295. (New) The composition of claim 294, wherein said specific complex is mediated by a ligand binding receptor. --

-- 296. (New) The composition of claim 295, wherein said ligand binding receptor is selected from a polynucleotide sequence to be recognized by its complementary sequence, an antigen to be recognized by its corresponding

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*Sub B8*

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Page 9 (Preliminary Amendment Accompanying Request For Divisional Application  
Under 37 C.F.R. §1.60- November 25, 1997)

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monoclonal or polyclonal antibody, an antibody to be recognized by its corresponding antigen, a lectin to be recognized by its corresponding sugar, a hormone to be recognized by its receptor, a receptor to be recognized by its hormone, an inhibitor to be recognized by its enzyme, an enzyme to be recognized by its inhibitor, a cofactor to be recognized by its cofactor enzyme binding site, a cofactor enzyme binding site to be recognized by its cofactor, a binding ligand to be recognized by its substrate, or a combination of the foregoing. --

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-- 297. (New) The composition of claim 285, further comprising said cell of interest. --

-- 298. (New) The composition of claim 285, wherein said cell of interest is contained within an organism. --

-- 299. (New) A method of introducing a nucleic acid component into a cell comprising:

- (a) providing the composition of claim 285; and
- (b) administering said composition. --

-- 300. (New) The method of claim 299, wherein administering is carried out *in vivo*. --

-- 301. (New) The method of claim 299, wherein administering is carried out *ex vivo*. --

-- 302. (New) A kit for introducing a nucleic acid component into a cell of interest, comprising in packaged containers or combination:

- (a) an entity which comprises a domain to said nucleic acid component, wherein said domain is attached to said cell of interest, optionally with
- (b) buffers and instructions. --